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Docket No. SUN-DA-116T
Serial No. 10/743,608In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method for forming a capacitor and a contact hole of a semiconductor device simultaneously comprising the steps of:

depositing a metal layer on a substrate;

depositing a titanium nitride (TiN) layer directly on the metal layer;

forming a pattern on the TiN layer and making a capacitor part and a contact hole part using the pattern, the capacitor part comprising some portion of the metal layer and the TiN layer as a lower metal layer of the capacitor, the contact hole part comprising another portion of the metal layer and the TiN layer;

forming an insulating layer with a predetermined thickness over the substrate including the capacitor part and the contact hole part;

forming an interlayer dielectric (ILD) layer on the insulating layer, the ILD layer being relatively thicker than the insulating layer;

forming a first photoresist pattern on the ILD;

removing some parts of the ILD layer by an etching process using the first photoresist pattern as a mask in order to form openings on the insulating layer in the capacitor part and the contact hole part;

forming a second photoresist pattern over the ILD layer including the openings;

removing some part of the insulating layer and the TiN layer in the contact hole part by an etching process using the second photoresist pattern as a mask in order to extend the opening in the contact hole part to the metal layer;

removing the second photoresist pattern; and

filling the openings with tungsten to form tungsten plugs.

2. (Original) The method as defined by claim 1, wherein the metal layer of the capacitor part is used as a lower metal layer of a capacitor, the insulating layer is formed of nitride, and the tungsten plug on the capacitor part is used as an upper metal layer of a capacitor.